

RENO GAZETTE-JOURNAL

Dynamic Diesel keyed in on efficiency

Brandy Dela Vega
RENO GAZETTE-JOURNAL
10/24/2004 09:40 pm

A local diesel-engine service company has what owner John Bush believes is a high-tech solution for emission-control problems.

Dynamic Diesel Systems Inc. is the only registered dealer in Northern Nevada of the Emissions Technology DC-100 Combustion Catalyst System, which is an emissions-control product retrofitted onto mobile- and stationary-diesel engines.

Sparks-based Dynamic Diesel started offering the DC-100 in July 2002. It can be installed at the company's facility or on-site through Bush's Northern Nevada Mobile Diesel Service Inc. The system can be fitted onto mining and construction equipment, as well as personal and recreational diesel vehicles.

Bush cited convenience and effectiveness as advantages to using the system.

"I can install it in less than an hour, even on-site," he said. "It decreases emissions and increases engine performance."

All of the system's components, including a bottle of catalyst solution and a pump, are contained in a black box fitted near the engine.

The pump creates a vacuum in the solution bottle, which contains platinum, rhodium and rhenium suspended in liquid. The vacuum creates bubbles that pop and form an aerosol that is injected into the engine's combustion chamber, where it mixes with air and fuel to create a more complete burn. A more efficient fuel burn reduces pollutants in the exhaust and increases fuel efficiency, according to Bush.

A bottle of the solution needs to be replaced every 400 operating hours when catalysts have been used up, which companies can do themselves.

Dynamic Diesel Vice President Brent Christoffersen said the system is easy to maintain.

"The solution is nontoxic," he said. "The bottles can be recycled when they are replaced so there is no need for special disposal."



David B. Parker/David B. Parker
HIGH TECH: John Bush of Dynamic Diesel installs an emissions kit from Emissions Technology. His company is the local distributor for the product.

The cost of installation is less than \$1,000 per unit, and Clint Capurro, owner of Capurro Trucking of Sparks, said the cost is made up in fuel savings and increased engine performance.

Capurro has used the DC-100 units for about a year on 65 of his vehicles.

"It's not cheap," he said. "But in fuel savings alone in today's market, it's worth it. I don't know how it works, but it's pretty good stuff. My drivers could tell by the engine performance when the bottles ran out."

Emissions tests performed on various diesel engines by Emissions Technology showed 26-80 percent reduction in emissions, including diesel particulates and nitrous oxides, two pollutants tracked in the Environmental Protection Agency's emission standards.

Bush, who has 20 years experience working with diesel engines, said companies using diesel engines are starting to look for emission-control technology to comply with stricter governmental standards.

"Some contractors are finding it necessary to resolve their air-quality issues," Bush said. "They will have to fall into compliance with regulatory emissions-control standards in the near future."

The EPA has regulated diesel fuel quality since 1993 and has passed new emissions standards to take effect in 2007.

"There are an estimated 11 to 12 million diesel engines in the United States that can last 20 to 30 years," said Chris Shol, vice president of sales for Phoenix-based Emissions Technology. "New fuels, other treatment systems and retrofitting will become more important in the next three years as companies address coming closer to meeting new emissions standards in 2007."

Bush and Brent Christoffersen, vice president of Dynamic Diesel, are trying to inform state agencies about the DC-100 system and plan a presentation to the State of Nevada Division of Environmental Protection.

Jeryl Gardner, environmental scientist with the division, said the DC-100 looks like it could be effective with both mobile and stationary diesel engines.

"We are definitely interested in getting systems into effect with contractors in the state of Nevada," he said.

Sig Jaunarajs, an environmental scientist specializing in mobile emissions sources, said they would be interested in any product that can reduce both particulates and nitrous oxides in emissions.

"In Nevada, retrofitting is still a voluntary program," he said. "The idea is that we can get some retrofitting done to fill in that gap of equipment made in the 1990s."

Copyright © 2004 The Reno Gazette-Journal